contacting the surface of the optical plastic article with the solution.

18. (Twice Amended) The method of claim 17, wherein the optical plastic article comprises a plastic matrix and the dissolved plasticizer in the solution provides local surface mobility to the plastic matrix.

24. (Amended) The method of claim 17, further comprising the step of:

heating the optical plastic article to evaporate the solvent, following said contacting step.

25. (Amended) The method of claim 24, wherein the optical plastic article is heated to a temperature below the glass transition temperature of the optical plastic article.

26. (Amended) The method of claim 17, wherein the optical plastic article comprises polycarbonate and the solvent is selected from the group consisting of tetrahydrofuran, a chlorinated hydrocarbon, and combinations thereof.

29. (Amended) The method of claim 17, wherein

the optical plastic article is selected from the group consisting of polymethyl methacrylate and polycarbonate-polyester copolymers; and

the solvent is selected from the group consisting of tetrahydrofuran, a chlorinated hydrocarbon, and combinations thereof.

32. (Amended) The method of claim 17, wherein the optical plastic article comprises polystyrene and the solvent is selected from the group consisting of tetrachloride, methyl isopropyl ketone, and propyl propionate, and combinations thereof.

35. (Amended) The method of claim 17, wherein the optical plastic article comprises polyethylene terephthalate and the solvent is a chlorinated hydrocarbon, and combinations of chlorinated hydrocarbons thereof.

39. (Twice Amended) An article having a mixture infused therein by a solvent comprising:

an optical plastic article having a surface and a solubility parameter δ; and

a mixture of dye and a plasticizer infused into the surface, with said mixture having been infused while being dissolved in an aggressive solvent having a solubility parameter δ within plus or minus 1 $(cal/cm^3)^{0.5}$ of the solubility parameter δ of the optical plastic article.

40. (Twice Amended) The article of claim 39, wherein the optical plastic article comprises a plastic matrix and the plasticizer provides local surface mobility to the plastic matrix.

45. (Amended) The article of claim 39, wherein the optical plastic article comprises polycarbonate and the solvent is selected from the group consisting of tetrahydrofuran, a chlorinated hydrocarbon, and combinations thereof.

D7 cont'd 46. (Amended) The article of claim 45, wherein the plasticizer is selected from the group consisting of polyethyleneglycol dibenzoate, pentaerythritol tetrabenzoate, dioctyl phthalate, dipropyl phthalate, dimethyl phthalate, dioctyl adipate and dioctyl sebacate.

D8 48. (Amended) The article of claim 39, wherein

the optical plastic article is selected from the group consisting of polymethyl methacrylate and polycarbonate-polyester copolymers; and

the solvent is selected from the group consisting of tetrahydrofuran, a chlorinated hydrocarbon, and combinations thereof.

D9 51. (Amended) The article of claim 39, wherein the optical plastic article comprises polystyrene and the solvent is selected from the group consisting of tetrachloride, methyl isopropyl ketone, and propyl propionate, and combinations thereof.

D10 54. (Amended) The article of claim 39, wherein the optical plastic article comprises polyethylene terephthalate and the solvent is a chlorinated hydrocarbon, and combinations of chlorinated hydrocarbons thereof.

Please add the following new claims 58 – 79:

58. (New) A method of dying a surface of an optical plastic article comprising the steps of:

selecting a solvent which is aggressive to the plastic article based on solubility parameters;

dissolving a dye and a plasticizer into the solvent to form a solution;

infusing the dye and plasticizer into the surface of the plastic article with aggressive solvent enabled penetration; and

evaporating the deeply penetrating solvent assisted by infused plasticizer without substantially affecting the optical transmission characteristics of the optical plastic article.

59. (New) The method of claim 58, wherein the plastic material comprises a plastic matrix and the dissolved plasticizer in the solution provides local surface mobility to the plastic matrix.

60. (New) The method of claim 58, wherein each solubility parameter δ is measured in $(cal/cm^3)^{0.5}$ and wherein the solubility parameter of the aggressive solvent is within 1 $(cal/cm^3)^{0.5}$ of the solubility parameter of the plastic material.

61. (New) The method of claim 58, wherein the surface is contacted with the solution for less than about one minute.

62. (New) The method of claim 58, wherein the dye comprises a photochromic dye.

63. (New) The method of claim 58, wherein the dye is selected from the group consisting of a cosmetic tinting dye, an infrared absorbing dye, a laser radiation absorbing dye, an ultraviolet absorbing dye and combinations thereof.

64. (New) The method of claim 58, wherein the dye and the plasticizer are infused up to about 150 microns deep into the surface.

65. (New) The method of claim 58, further comprising the step of:

heating the plastic to evaporate the solvent, following said contacting step.

D 11 cont'd

66. (New) The method of claim 65, wherein the plastic is heated to a temperature below the glass transition temperature of the plastic.

67. (New) The method of claim 58, wherein the plastic material comprises polycarbonate and the solvent is selected from the group consisting of tetrahydrofuran, a chlorinated hydrocarbon, and combinations thereof.

68. (New) The method of claim 67, wherein the plasticizer is selected from the group consisting of polyethyleneglycol dibenzoate, pentaerythritol tetrabenzoate, dioctyl phthalate, dipropyl phthalate, dimethyl phthalate, dioctyl adipate and dioctyl sebacate.

69. (New) The method of claim 68, wherein the dye comprises a photochromic dye.

70. (New) The method of claim 58, wherein the plastic material is selected from the group consisting of polymethyl methacrylate and polycarbonate-polyester copolymers; and

the solvent is selected from the group consisting of tetrahydrofuran, a chlorinated hydrocarbon, and combinations thereof.

71. (New) The method of claim 70, wherein the plasticizer is selected from the group consisting of polyethyleneglycol dibenzoate, pentaerythritol tetrabenzoate, dioctyl phthalate, dipropyl phthalate, dimethyl phthalate, dioctyl adipate and dioctyl sebacate.

72. (New) The method of claim 71, wherein the dye comprises a photochromic dye.

73. (New) The method of claim 58, wherein the plastic material comprises polystyrene and the solvent is selected from the group consisting of tetrachloride, methyl isopropyl ketone, and propyl propionate, and combinations thereof.

74. (New) The method of claim 73, wherein the plasticizer is selected from the group consisting of dioctyl phthalate, dipropyl phthalate, and dimethyl phthalate.

75. (New) The method of claim 74, wherein the dye comprises a photochromic dye.